WANG

Independent Sales Organization

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Number 8
April–May 1984

SECOND ANNUAL ISO CONFERENCE

JUNE 3-5, 1984

BOSTON, MASSACHUSETTS

Pre Registration Form Inside

ISO Tech News

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ISO Tech News welcomes your input, comments, questions, and suggestions. The Reply Form at the back of this issue may be used, or letters may be addressed to: Jo Anne Kelch, ISO Tech News Editor, Mail Stop 1408A, Wang Laboratories, Inc., One Industrial Avenue, Lowell, MA 01851. Views expressed by bylined contributors do not necessarily reflect those of Wang Laboratories, Inc.

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ISO CONFERENCE PRE-REGISTRATION FORM

SECOND ANNUAL ISO CONFERENCE JUNE 3-5, 1984

by ISO Marketing

All Wang dealers, system houses, and software vendors are invited to attend Wang's Second Annual ISO Conference from Sunday, June 3, through Tuesday, June 5, 1984, at the Boston Marriott Hotel / Copley Place in Boston, Massachusetts. This year's conference, entitled "Planning for Growth", will offer practical knowledge for growing an ISO business.

A variety of business planning and marketing seminars, product workshops, and software fairs are scheduled. Both management and technical personnel are encouraged to attend this conference; concurrent programs of interest to both groups are being offered. Numerous representatives from Wang Laboratories will be present throughout the conference to discuss your concerns and inquiries, both formally and informally.

Registration Information

To register, fill out both sides of the ISO Conference Pre-Registration Form at the back of this issue and return the completed form together with a check for the $200 conference fee, payable to Wang Laboratories, Inc., to:

Wang Laboratories, Inc.
Mail Stop 5249B
One Industrial Avenue
Lowell, MA 01851

Included in the $200 conference fee are a Sunday evening business card reception, continental breakfasts and luncheons on Monday and Tuesday, a Monday evening reception and banquet, and a closing reception on Tuesday. As an added highlight, the Tall Ships will be returning to Boston for a week-long celebration from June 2-7. You may want to extend your stay in order to participate in the Tall Ship festivities along Boston Harbor.

If you have questions regarding the conference, call Wang Laboratories, Inc. at (617) 250-5289. Reservations should be mailed before May 25, 1984. No telephone reservations will be accepted.

A conference agenda and listing of session topics is given on the following pages.

(continued)

SECOND ANNUAL
ISO CONFERENCE
JUNE 3-5, 1984
(continued)

1984 ISO CONFERENCE AGENDA

Sunday, June 3, 1984

1:00 pm - 6:00 pm	Conference Registration
3:00 pm - 6:00 pm	Wang PC Software Fair
6:00 pm - 9:00 pm	Business Card Exchange Reception

Monday, June 4, 1984

8:00 am - 5:00 pm	Registration
7:30 am - 8:30 am	Continental Breakfast
9:00 am	Opening Session
9:45 am	ISO Overview
10:00 am	Marketing Presentation
10:15 am	Coffee Break
10:30 am	Hardware Strategy Presentation
11:30 pm - 1:30 pm	System House/Dealer Luncheon
11:30 pm - 1:30 pm	Software Vendor Luncheon
1:30 pm - 5:30 pm	Wang PC & VS-2200-OIS Software Fairs
2:00 pm - 3:30 pm	Concurrent Sessions *
3:30 pm - 4:00 pm	Coffee Break
4:00 pm - 5:30 pm	Concurrent Sessions *
6:00 pm - 7:00 pm	Cocktail Reception
7:00 pm	Banquet

Tuesday, June 5, 1984

8:00 am - noon	Registration
7:30 am - 8:30 am	Continental Breakfast
9:00 am - 11:00 am	Wang Executive Panel Discussion
9:00 am - 11:00 am	PC Software Developers' Session
11:00 am - noon	PC Fair & VS-2200-OIS Software Fairs
noon - 1:30 pm	Luncheon & Speaker
1:30 pm - 5:30 pm	Wang PC & VS-2200-OIS Software Fairs
2:00 pm - 3:30 pm	Concurrent Sessions *
3:30 pm - 4:00 pm	Coffee Break
4:00 pm - 5:30 pm	Concurrent Sessions *
5:00 pm - 7:00 pm	Closing Reception

* The concurrent sessions are described in more detail on pages 311-315. Session preferences must be indicated on the ISO Conference Pre-Registration Form.

(continued)

SECOND ANNUAL ISO CONFERENCE JUNE 3-5, 1984 (continued)

ISO CONFERENCE SPECIAL ATTRACTIONS

Business Card Exchange Reception — Sunday 6:00 pm

The 1984 ISO Conference will be in full swing Sunday from 6:00 to 9:00 pm with the Irish music of Harvest Home. Don't forget to bring along your business cards.

Introductory Presentations — Monday 9:00 am

Monday's business will begin with an audio-visual presentation and a welcoming address by Robert Doretti, Senior Vice President, Wang U.S. Operations.

An overview by Richard J. Connaughton, Vice President of Wang ISO Marketing, will emphasize the accelerating growth of Wang's Independent Sales Organization and its increasing significance in Wang's market development.

Additional introductory presentations will focus on Wang's software marketing strategy and opportunities for improving the revenue goals of Wang system houses, dealers, and software vendors. Wang's product and technology direction will also be discussed.

System House/Dealer Luncheon — Monday 11:30 am - 1:30 pm

System house and dealer attendees are invited to dine with representatives from the Wang ISO Marketing group. Featured speakers will be Frank Girard, Director of System House Marketing, and Carmen Reitano, Director of Dealer Marketing.

Software Vendor Luncheon — Monday 11:30 am - 1:30 pm

Software developers are invited to join members of Wang's Software Marketing group for a combined luncheon and presentation by Don Marshall, Director of Software Marketing.

Keynote Speaker — Monday 7:00 pm

At Monday evening's banquet, the keynote address will be delivered by Fran Tarkenton, whose performance in the National Football League made him the number one ranked passer in NFL history. Today Tarkenton is achieving that same kind of success as chairman of the board for Tarkenton and Company, a consulting firm specializing in productivity improvement for its clients. In addition, Tarkenton is co-host of the television series "That's Incredible" and is a commentator on ABC TV's "Monday Night Football."

(continued)

SECOND ANNUAL ISO CONFERENCE JUNE 3-5, 1984 (continued)

SPECIAL ATTRACTIONS (continued)

Wang Executive Panel Discussion — Tuesday 9:00 - 11:00 am
A highlight of last year's conference, this panel will again feature executives from Wang's Product Management, Marketing Support, Distribution, ISO, International ISO, Software Marketing and Sales groups, who will host an interactive discussion with attendees.

PC Software Developer's Seminar — Tuesday 9:00 - 11:00 am
Six representatives from the PC software industry's most successful and fastest growing companies will be on hand to discuss their strategies for planning for growth in 1984.

General Luncheon — Tuesday noon - 1:30 pm
All Conference attendees are invited to Tuesday's luncheon with featured speaker Ted Leonsis. Ted Leonsis is founder, editor-in-chief and publisher of LIST magazine, LISTLetter and the LISTWARE series of books/software packages.

VS-2200-OIS Software Fair — Mon. 1:30 pm - Tues. 5:30 pm
At this Author Vendor Demonstration Forum, software developers representing the VS, 2200 and OIS product lines will demonstrate their software solutions and describe cross-licensing and vendor re-selling opportunities.

Wang PC Software Fair — Sun. 3:00 pm - Tues. 5:30 pm
This year, over 30 of the industry's foremost PC software developers representing Wang's Software Connections Program have been scheduled to provide software demonstrations and lead business discussions for interested re-sellers.

Closing Reception — Tuesday 5:00 pm
The conference will end at 5:30 pm on Tuesday with a gala send-off celebration. Don't miss this final opportunity to meet with Wang's ISO and Software Marketing groups.

CONCURRENT CONFERENCE SESSIONS

Concurrent sessions, grouped by audience focus, are listed on the following pages. There will be two concurrent sessions on Monday and two on Tuesday from 2:00-3:30 p.m. and 4:00-5:30 p.m. Session preferences must be specified on the ISO Conference Pre-Registration Form.

(continued)

SECOND ANNUAL
ISO CONFERENCE
JUNE 3-5, 1984
(continued)

Audience: SYSTEM HOUSES

System House Technical Support (M1A) Monday 2:00-3:30
(Repeated as T8B) Tuesday 4:00-5:30

Wang's focus on the ISO network is evident in the new ISO programs that are being implemented. This session will cover Wang's technical support programs such as ISO Tech News, conversion aids, technical update seminars and the details of the new entitlement service for system houses.

by ISO Technical Support, Wang Laboratories, Inc.

Telemarketing (M2A) Monday 2:00-3:30

Telemarketing is used to increase revenue while reducing the costs of sales and service. It's a marketing discipline that combines the use of technology with a well-managed marketing program. This session will show you how telemarketing can benefit your business.

by Jeffrey McBride, AT&T Communications

System House Administration (M9B) Monday 4:00-5:30
(Repeated as T1A) Tuesday 2:00-3:30

Understanding what goes on behind the scenes can help you facilitate the administrative process. During this session, you will learn what's new in administrative support for system houses. Order processing, contract negotiations, distribution, credit and collections will be discussed.

by Wang ISO & Contracts Administration and Business Management

Attracting Venture Capital (M10B) Monday 4:00-5:30

Venture capital is a key to stimulating the growth of your business. Don't miss this unique opportunity to learn what venture capital investors are looking for in terms of financial position and business plans.

by Joseph Stavenhagen, Claflin Capital Management

Using Seminars to Increase Sales (T2A) Tuesday 2:00-3:30

In this session, you'll learn how to plan a successful seminar. Using the seminar forum as a sales tool is a proven method of leveraging sales efforts, but the seminar will only be as effective as the preparation. Awareness of audience needs is critical.

by Sandy Smith, Wilson Learning Corporation

Positioning for Growth (T9B) Tuesday 4:00-5:30

Share the experiences of two systems house executives as they discuss how they managed change and growth in their respective organizations. BKW has recently acquired venture funds and has gone public. Creative Data Systems was acquired by Informatics, another Wang systems house.

by Alfred Fichera, BKW, Inc. and
Marvin Lader, Creative Data Systems, Division of Informatics

(continued)

SECOND ANNUAL ISO CONFERENCE JUNE 3-5, 1984 (continued)

Audience: SYSTEM HOUSES & SOFTWARE VENDORS

Wang Systems Networking: A Communications Strategy (M6A) Monday 2:00-3:30
This session will provide an overview of the communication capabilities that are available across the Wang product line. Particular emphasis will be placed on the utilization of a Wang network in the design and implementation of network-based applications.

by Communications Marketing, Wang Laboratories, Inc.

PC BASIC-2 and 2200 Bridge Strategy (M7A) Monday 2:00-3:30
PC BASIC-2 will enable 2200 software to be ported to operate on a Wang PC. File transfer between a Wang PC and a 2200 can be accomplished via Wang's asynchronous communications package. These products play an integral part in Wang's 2200 bridge strategy. Learn about these products and how they can help you penetrate the PC market.

by 2200 Product Marketing, Wang Laboratories, Inc.

Integration with Wang Core Software (M12B) Monday 4:00-5:30
Some commonly asked questions by software developers are "How can I integrate my applications with Wang's Core Software?" and "What standards does Wang use when writing software for the PC?" These questions and more will be answered in this session.

by Software Marketing and R&D, Wang Laboratories, Inc.

Wang PC Local Interconnect Option (M13B) Monday 4:00-5:30
The Local Interconnect Option (LIO) is an important part of Wang's network strategy. Through this option, Wang Professional Computers can share peripheral devices and files. Software applications can take advantage of the security features that are part of the LIO. This session will help you develop an understanding of Wang's local area network and how it relates to application software.

by Communications Product Marketing, Wang Laboratories, Inc.

Wang VS Development Environment: An Update (M14B) Monday 4:00-5:30
This session will cover many of the latest enhancements to VS systems software including language enhancements, operating system extensions, and UNIX. Emphasis will be placed on discussing new VS features that directly affect the application development environment.

by VS Systems Marketing, Wang Laboratories, Inc.

Writing Software for Wang's International Markets (T4A) Tuesday 2:00-3:30
What standards are important in order for software to be accepted in international markets? Topics of discussion will include international ergonomics, language translation and other international requirements.

by International ISO Marketing, Wang Laboratories, Inc.

(continued)

SECOND ANNUAL ISO CONFERENCE JUNE 3-5, 1984 (continued)

Audience: SYSTEM HOUSES & SOFTWARE VENDORS (continued)

Wang OFFICE: A Model for Integration (T6A) Tuesday 2:00-3:30
This session will provide an overview of the new Wang OFFICE application product, highlighting its features and functions on the VS, OIS and Wang PC product lines. Specific capabilities that allow the integration of applications into the Wang OFFICE product will be presented.

by Wang Office Product Marketing, Wang Laboratories, Inc.

Wang PC Compatibility with IBM PC (T11B) Tuesday 4:00-5:30
As they relate to software vendors, what are the similarities and differences between the Wang PC and the IBM PC? How can software be written so that it's easily converted to the Wang PC? What utilities and conversion aids are available? This session will attempt to answer these questions.

by Wang PC Product Marketing and R&D, Wang Laboratories, Inc.

PACE: An Application Development Environment (T12B) Tuesday 4:00-5:30
This session will present the features and functions of PACE, a new VS product which provides an effective environment in which to build applications. Emphasis will be placed on the Relational Data Base Management System, Application Builder, and the Query and Report Writing capabilities of PACE.

by VS Product Marketing, Wang Laboratories, Inc.

Wang PC Attached to a VS (T13B) Tuesday 4:00-5:30
Advantages of using a Wang PC as a distributed processor will be discussed, as well as how to take advantage of the power of a VS when it's attached as a workstation. To learn more about the VS file sharer and virtual disk. Also to be discussed is Wang PC Multi Station, which allows up to 4 VS applications and 1 PC application to be displayed on the screen in up to 5 windows.

by Wang PC Product Marketing, Wang Laboratories, Inc.

Wang PIC™ Product Overview (T14B) Tuesday 4:00-5:30
The Wang PIC™ image processing system is an exciting product that brings image technology to a Wang Professional Computer. Learn more about the product, its positioning, and the opportunities that it holds.

by Office Systems Product Marketing, Wang Laboratories, Inc.

Audience: SOFTWARE VENDORS

Business Opportunities: Planning for the Future (M4A) Monday 2:00-3:30
The continually evolving computer and software marketplace has given rise to new and exciting business opportunities. Business models focusing on the types of services and products that are becoming more and more profitable will be presented.

by Software Marketing, Wang Laboratories, Inc.

(continued)

SECOND ANNUAL ISO CONFERENCE JUNE 3-5, 1984 (continued)

Audience: SOFTWARE VENDORS (continued)

International PC Software Marketing Opportunities (M15B) Monday 4:00-5:30
This session addresses the software potential in Wang's international markets. The session will include a discussion of Wang's international channels, international potential and how to approach international opportunities.

by International ISO Marketing, Wang Laboratories, Inc.

Audience: DEALERS

Effective Local Advertising (M3A) Monday 2:00-3:30
This seminar will give you practical guidelines for managing a complete advertising program -- how to set a promotional theme, attract your target customers, when to hire an agency, what to look for in an agency, media selection, tools for measuring advertising effectiveness and more.

by Marlene Tanzer, founder/partner of Intragraphics advertising firm

Making Money with Complementary Products & Services (M11B) Monday 4:00-5:30
Every sale you make decreases the potential of the systems market and increases the potential of the after market. The exploding after market offers dealers high margins, low overhead, low fixed investment, and ease of entry. This session will present guidelines for capitalizing on these opportunities with a minimum of cost and a maximum of profit.

by Jim Pettinger, President, Augur Data Planning, Inc.

Practical Merchandising for Increased Sales (T3A) Tuesday 2:00-3:30
Like every other element of your store, merchandising should be a sales-producing tool. Learn how displays, layout and store appearance can help to pre-sell your products. Specific and practical merchandising techniques for increasing your sales will be presented in this seminar.

by Terry Fick, President, Computer Roomers, Inc., and
Marlee Payne, Vice President of Marketing, Highland Three, Inc.

Operational & Legal Aspects of Floor Planning (T10B) Tuesday 4:00-5:30
Facing a price-competitive environment and lowering margins, dealers need to manage cash more judiciously than ever. This seminar will provide practical techniques for managing the financial, legal, and operational aspects of floor planning. A cash management strategy to help you grow your business will be discussed.

by John Yates, Vaughn, Phears, Hardy, Roach and Murphy

(continued)

SECOND ANNUAL
ISO CONFERENCE
JUNE 3-5, 1984
(continued)

Audience: GENERAL

Wang PC Product Line (M5A) Monday 2:00-3:30
(Repeated as T5A) Tuesday 2:00-3:30
This session will focus on the current Wang PC product line as well as future plans and Wang's strategy for low-end products. The PC marketplace is a dynamic one; learn about Wang's recent announcements and how they fit into the overall Wang strategy.

by Wang PC Product Marketing, Wang Laboratories, Inc.

Peachtree™ Product Workshop (M8A) Monday 2:00-3:30
The joint marketing efforts of Wang and Peachtree in the area of PC solution selling will be discussed in this workshop. Topics will include an Accounting Product overview, a Productivity overview, marketing and promotional strategy, and technical information. Following the presentation, attendees will be encouraged to participate in a hands-on demonstration of the various Peachtree applications.

by Software Marketing, Wang Laboratories, Inc.

Visi On™ (M16B) Monday 4:00-5:30
This session deals with a variety of Visi On application products, all developed by VisiCorp. This new generation of business software expands the role of the Wang PC in today's business community by providing productivity tools for executives and professionals. The session will be followed by a hands-on demonstration of Visi On applications.

by Software Marketing, Wang Laboratories, Inc.

Lotus 1-2-3™ (T7A) Tuesday 2:00-3:30
The 1-2-3 package combines spreadsheet, graphics and information management applications into a single integrated program. This session will give you the opportunity to see the features, functions and benefits of the Lotus 1-2-3 software package. An informal demonstration will follow.

by Software Marketing, Wang Laboratories, Inc.

TK!Solver™ (T15B) Tuesday 4:00-5:30
Developed by Software Arts, this product represents a new concept in problem-solving software. TK! Solver complements spreadsheet and database software, offering the equation-solving power of a mini computer in a micro package. This session is designed to present the major features of TK!Solver, followed by an informal demonstration.

by Software Marketing, Wang Laboratories, Inc.

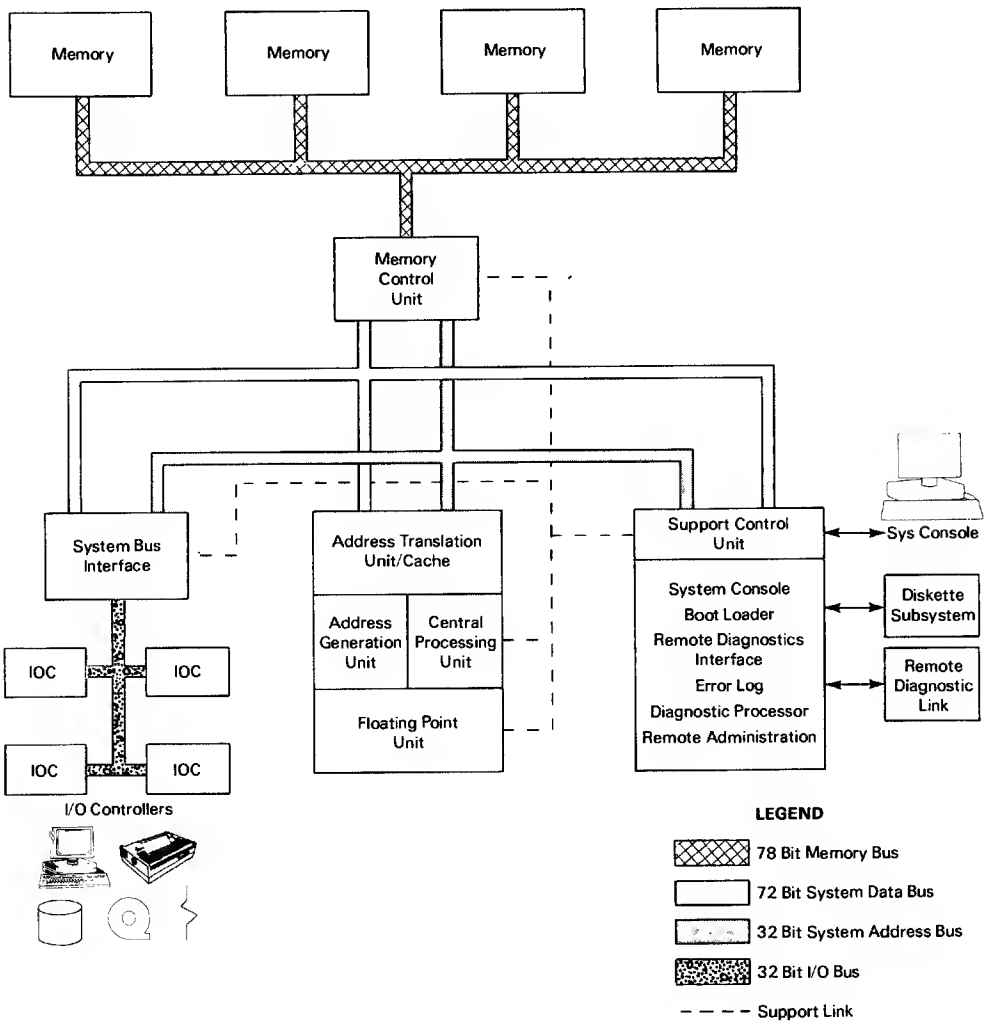
Peachtree™ software is a trademark of Peachtree Software, Inc.
Visi On™ is a trademark of VisiCorp.
Lotus 1-2-3™ is a trademark of Lotus Development Corporation.
TK!Solver™ is a trademark of Software Arts, Inc.

VS 300 ANNOUNCED
by VS Product Marketing

DESCRIPTION

Wang Laboratories is pleased to announce the VS 300, an extension of the VS family of 32-bit systems, providing solutions for large business needs in the distributed data processing and office automation environments. With the VS 300, an entirely new system has been designed. Among the features of the new VS 300, shown in the diagram below, are:

- A New High Speed Processor
- A New Main Memory Control System
- A New Intelligent I/O Subsystem
- New Reliability and Serviceability Features



VS 300 Architecture

(continued)

VS 300 ANNOUNCED (continued)

New High Performance Processor

The new VS 300 processor will have a performance capacity approximately three times that of the VS 100. This enhanced performance is based on a state-of-the-art computer system hardware architecture which employs "pipeline" techniques to overlap instruction processing and execution. The CPU is implemented with an Address Translation Unit (ATU) containing private, high speed cache memory and an Address Generation Unit (AGU).

The ATU provides virtual-to-physical address translation, manages cache memory, and provides memory protection. The AGU manages instruction/data fetching and decodes instructions, calculating the effective addresses. This "pipeline" technique provides outstanding performance, with the maximum capacity of processing a new macro instruction every machine cycle (120 nanoseconds).

An optional hardware Floating Point Unit performs floating point arithmetic at a rate 10 to 15 times faster than that of the VS 100. Applications that utilize floating point arithmetic will experience significant performance improvements on the VS 300.

New Main Memory Control System

All main memory requests are managed by a buffered Memory Control Unit (MCU), which provides error detection and correction, global memory access, and memory request buffering. These MCU memory management techniques complement the enhanced processor and I/O subsystem of the VS 300 to improve overall system performance.

Main memory configurations range from 4 to 16 MB in 4 MB increments. Memory access is fast (8 bytes in 420 nanoseconds; 32 bytes in 900 nanoseconds). The processor and main memory are implemented on a high speed system bus with a 66.7 megabytes/second bandwidth.

New Input/Output Subsystem

The VS 300 I/O subsystem consists of a System Bus Interface and up to 15 I/O Controllers (IOCs). Each IOC is designed to handle a specific type of peripheral: serial, disk, tape, telecommunications, or WangNet. Each of the IOCs is driven by a 16-bit microprocessor and has direct memory access. The IOC systems are designed to maximize system performance by handling all I/O operations for the CPU. The IOCs converse with the System Bus Interface over a 33.3 megabyte/second I/O Bus.

(continued)

VS 300 ANNOUNCED (continued)

The System Bus Interface component provides a transparent interface between the processor and the controllers. The main function of the System Bus Interface is to provide memory protection when the IOCs communicate to main memory.

The VS 300 offers a comprehensive set of communications facilities which includes new hardware elements as well as support for the existing VS-6554 telecommunications processor. Protocols supported on the VS 300 will include the General Asynchronous Interface, Wang Systems Networking Multipoint Primary/Secondary and Point-to-Point, X.25, SNA, 3271, IDS/3270, VS HASP, 2780/3780, and Wang Remote Workstations.

New Reliability And Serviceability Features

Included with the VS 300 system is a Support Control Unit (SCU) for performing control operations, system maintenance activities and diagnostic functions independent of the I/O subsystem. Features of the Support Control Unit include:

. System Console - A "soft system console" feature allows the operator to invoke IPL and Control Mode with a keyboard command, as opposed to activating these modes with processor buttons. The monitor and keyboard of the system console can be used as a DP workstation, and the built-in 5-1/4" diskette drive can be used to load microcode and as a DP/WP archiver.

. IPL Diagnostics - The Boot Loader is a device that loads Central Processor microcode and micro-diagnostics. The Central Processor, Support Control Unit, and IOCs are provided with powerful diagnostics that ensure system reliability as the system is powered up.

. Remote Diagnostics - This standard feature allows a Customer Engineer to access the VS 300 via a dial-in telephone line, run appropriate diagnostics, and isolate system problems to the board level before arriving on site. A modem is supplied by Wang; the customer provides the telephone line. Users may choose C.E. support without Remote Diagnostics for an additional monthly fee.

. Remote System Administration - This capability allows a remote operator to perform operator functions and remote execution of programs. The customer must provide a telephone line and a modem. The Remote Administration feature is packaged with all VS 300 systems, and user implementation is optional.

(continued)

VS 300 ANNOUNCED (continued)

Battery Backup is an optional feature that protects volatile storage in the processor, main memory, and I/O Controllers for periods of up to one and one-half minutes. By protecting volatile storage during brownouts, power spikes and short duration power outages, Battery Backup enables processing to resume when power returns to the system. To protect the entire system, including peripherals, from longer power failures, an Uninterruptable Power Source (UPS) should be used.

VS 300 Housing

The VS 300 processor, main memory, MCU, SCU, and I/O Controllers are housed in a new cabinet that occupies less floor space than a VS 100. Smaller units make the system easier to install and maintain, and more compatible with office environments.

A compact Data Storage Cabinet is also supported on the VS 300. This cabinet occupies a very small floor space and can house either one or two 364 MB drives, or one 364 MB drive and up to two 76 MB removable drives for a maximum of 728 MB of storage. The new 364 MB fixed drive takes advantage of the faster data transfer rate supported by the VS 300 disk I/O Controller, and the 76 MB removable drive provides a convenient storage and backup media.

For additional information about the new VS 300, refer to the VS 300 Data Sheet (800-2124-01).

MARKETING STRATEGY

The VS 300 is positioned to be family-compatible with the existing VS product base, to meet the needs of the data processing/office automation environment, and to coexist with the rest of the industry in terms of communication protocols and networks. The VS 300 performs the most complicated functions while maintaining a user-friendly interface. Large volumes of data processing, text processing and program development can be processed while providing the required end-user response time in an interactive environment.

Customers who need to off-load a host mainframe will find the VS 300 a viable alternative for distributed data processing/office automation or centralized departmental processing. The VS 300 is an alternative for users who are considering either expanding the mainframe or installing competitive equipment. They will appreciate the easy learning cycle, as well as the VS 300 system expansion capabilities.

(continued)

VS 300 ANNOUNCED (continued)

Distributed Data Processing

The demands of an interactive data processing environment include heavy transaction processing and sophisticated programming support, incorporated into a responsive system that is easy to use. At a central location, the VS 300 can provide not only host communications service but can also be used as the central program development site. Depending on the practices of the specific site, about twice as many development users can be supported on a VS 300 as on a VS 100 with a similar memory configuration without experiencing performance degradation.

Office Automation

Without sacrificing performance, the VS 300 supports the office automation environment where many forms of information including data, words, images, voice and graphics are integrated into responsive decision support systems. With Wang OFFICE software, the VS 300 can become the center for electronic mail services, as users send information in many forms to other nodes in the network.

Networking

The VS 300 can perform as the hub of a network servicing multiple distributed systems. In a networking system, the VS 300 can also interface to a host computer in either a batch or an on-line mode. Powerful VS communications software can support these installations and provide a link for the entire network. Users will also find that the VS 300's strong communications capability enables applications to be transported throughout the network.

Transaction Processing

VS 300 features such as increased CPU power and larger main memory provide the response time required for efficient commercial transaction processing. The optional Floating Point Unit provides increased performance support for most engineering, scientific and modeling applications as well.

Product Line Positioning

The VS 85, 90 and 100 systems provide solutions for current business needs. These systems, along with the VS 25 and 45 systems, can support growth in user population and in applications. As customer installations expand, the VS product line expands with them. The current migration from the low end 25/45 systems through the 85/90/100 systems has been established. Now, the introduction of the VS 300 adds to this growth path.

(continued)

VS 300 ANNOUNCED (continued)

As an extension of the existing VS product line, the VS 300 provides a growth path for the current VS 100 customer base. Customers who are experiencing system growth and are limited by VS 100 configuration capabilities will find that the VS 300 provides a solution with more workstations, more main memory and more disk storage. All existing VS 100 peripherals are supported on the VS 300, with the exception of the 7-track tape drive and all parallel workstations and printers. The VS 300 provides not only configuration growth, but also increased performance.

Capacity Increases from VS 100 to VS 300

Maximum Allowable:	VS 100	VS 300	VS 300 to VS 100 Ratio
Memory	8 MB	16 MB	2 to 1
Workstations	128	192	3 to 2
Serial IOP/IOC Ports	16	32	2 to 1
Disks	16	32	2 to 1
Disk Storage	10.2 GB	20.4 GB	2 to 1
Independent Disk Paths	4	8	2 to 1
User Tasks	150	255	5 to 3

ORDERING INFORMATION

Each system consists of a VS 300 cabinet (containing the processor, main memory, the Memory Control Unit and the Support Control Unit), a console workstation with 5-1/4" DP/WP archiver, one 32-port serial IOC, one System Bus Interface, and the VS Operating System and Assembler.

VS 300 support will be provided by VS Operating System Release 7. OS Release 7 will support the following configuration maximums for first customer shipments in Q3, FY85. Configuration support extensions are planned within 12 months of first customer shipment, as follows:

Configuration Maximums

	Q3, FY85	Q3, FY86
Main Memory	16 MB	16 MB
Serial Devices, including WS & Printers	192	256
Total Number of IOCs	15	15
Serial IOCs	6	8
Disk Drive & 6250-bpi Tape Drive IOCs	8	8
Multiline TC IOCs	2	2
Wang Band IOC	1	1
Total Devices	255	384
Total Tasks	255	384
Background Tasks	63 *	256 *

* Background tasks include background data processing tasks, operator tasks and 2nd, 3rd and 4th Multi-Station tasks.

(continued)

VS 300 ANNOUNCED (continued)

Configuration Guidelines

The following additional guidelines are provided for use in configuring I/O Controllers and devices on the VS 300. The total number of IOCs cannot exceed 15.

Serial IOCs (up to 6 allowed)

The 23V97 Serial IOC supports up to 32 serial ports for all Wang workstations, printers, VS-TC and VS-TC1 communications controllers, and WangNet Peripheral Band devices. The total number of serial devices on a VS 300 cannot exceed 192. To determine the number of 23V97 Serial IOCs required, divide the total number of serial devices by 32, as shown in the following formula, and round to the next highest whole number.

```
# Serial IOCs =
   ((# local W/S) + (# local printers) + (# VS-TC) + (# VS TC1) + (# VS-6550)) / 32
```

To provide better cable management and enable maximum system configuration, Cable Concentrators may be used. A Cable Concentrator is a small cabinet which connects to one or more 23V97 Serial Device IOCs via a 50' ribbon cable. The Concentrator provides connectors for up to 64 serial device cables, enabling the cables to be connected in a convenient location up to 50' from the system cabinet. All serial devices supported on the VS 300 may be attached to the 23V97 Serial IOC through the VS300-CC Cable Concentrator. To determine the number of VS300-CC Cable Concentrators required, divide the number of serial devices by 64 and round up to the next highest whole number. A maximum of three VS300-CCs is allowed per VS 300 system. Note that Cable Concentrators enable connection of physical devices; logical device limitations are determined by the operating system.

Disk and Tape IOCs (up to 10 allowed)

The 23V95-1 Tape IOC supports up to four 2209V Tape Drives in any combination, and the 23V95-2 Tape IOC supports up to four 2219V Tape Drives in any combination. The Disk IOC comes in four models, 23V98-1,-2, -3,-4, supporting 1, 2, 3 or 4 drives respectively. There is no maximum for 23V95-1 Tape IOCs, other than the system maximum of 15 IOCs. The number of 23V98 Disk IOCs plus 23V95-2 Tape IOCs must be less than or equal to 10. To configure these IOCs, use the following formula, where 1.2 and 2.0 refer to the data transfer rates for disk and tape drives:

```
(# of 23V98 Disk IOCs not supporting 364 MB disks) * 1.2 +
(# of 23V98 Disk IOCs supporting 364 MB disks) * 2.0 +
(# of 23V95-2 Tape IOCs ) * 1.2 ≤ 10
```

(continued)

VS 300 ANNOUNCED (continued)

Telecommunications IOC

Telecommunications on the VS 300 may be handled either through the 23V96 Multi-line TC IOC or via a VS-6550 TC Processor on the 23V97 Serial IOC. The Multi-line TC IOC supports Wang Systems Networking Point-to-Point, the General Asynchronous Interface, and Remote Workstations. A new cost-reduced internal TC Processor, the VS-6550, will support all protocols with the exception of Wang Remote Workstations. Users requiring Wang Systems Networking Multipoint, X.25, 2780/3780/WPS, IDS/3270, 3271 BSC, 3274 SNA, 3777 SNA, or VS HASP should order the VS-6550.

- VS-6550 (up to 6 allowed)
  One VS-6550 is required for each TC line. The VS-6550 supports either RS232C, RS366 or X.21 electrical interface. Each VS-6550 requires a serial port on the 23V97 Serial IOC. When upgrading from another VS to the VS 300, the user may migrate any current VS-6554 Communications Processors to the VS 300. Each VS-TC or VS-TC1 within the VS-6554 being moved to a VS 300 requires a serial port on the 23V97 Serial IOC.

- 23V96 Multiline TC IOC (up to 2 allowed)
  The 23V96 Multiline TC IOC supports up to 16 telecommunications lines at an aggregate data rate of 1.8 megabits per second. To calculate the number of 23V96 TC IOCs required, sum the data rate of each TC line and divide by 1.8 Mbaud, rounding up.

Wang Band IOC (one allowed)
A new 23V97 Cable-Interface-Unit Wang Band IOC will support up to 64 virtual Wang Band circuits with a bandwidth of 500 Kilobits/second on the VS 300.

Domestic volume shipment of the VS 300 is expected to begin in Q4 FY85. The Floating Point Unit will be available in Q1 FY86. Prices for the VS 300 are as follows:

MODEL NUMBER	DESCRIPTION	PURCHASE PRICE	MONTHLY MAINT.
	VS 300 CENTRAL PROCESSING UNITS		
VS300-4	4,096 KB Main Memory	$ 170,000	$ 976
VS300-8	8,192 KB Main Memory	202,000	1176
VS300-12	12,288 KB Main Memory	234,000	1376
VS300-16	16,384 KB Main Memory	266,000	1576

(continued)

VS 300 ANNOUNCED (continued)

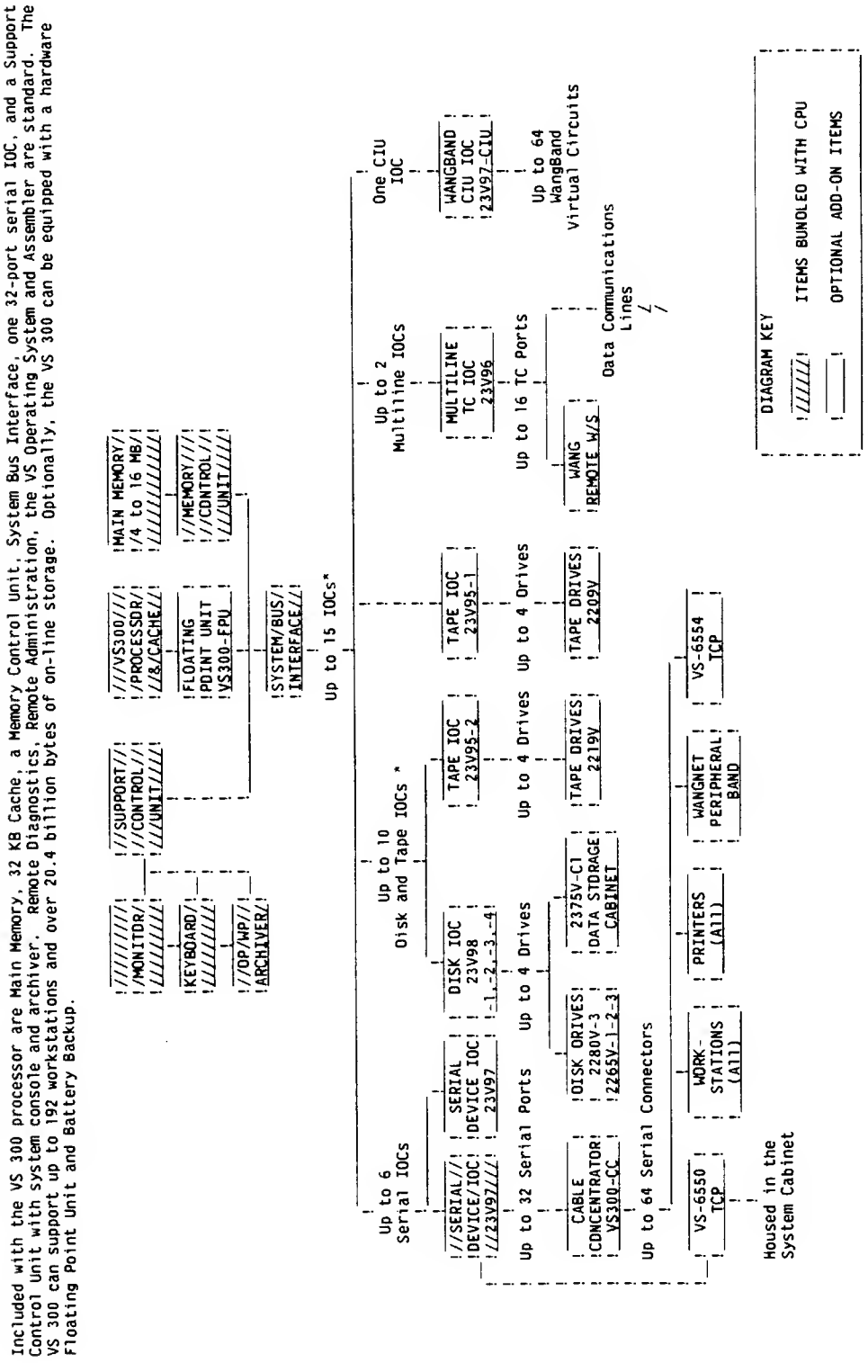
MODEL NUMBER	DESCRIPTION	PURCHASE PRICE	MONTHLY MAINT.
	DISK DRIVES		
2375V-C1	364 MB disk drive & Data Storage Cabinet	$ 28,000	$ 134
2375V-1	364 MB fixed drive (requires 2375V-C1)	25,000	124
2267V-1	76 MB remov. drive (requires 2375V-C1)	12,000	160
	OPTIONS		
VS300-FPU	Floating Point Unit	10,000	80
23V98-1	1-port Disk IOC	7,500	62
23V98-2	2-port Oisk IOC	8,500	77
23V98-3	3-port Disk IOC	9,500	92
23V98-4	4-port Oisk IOC	10,500	107
23V97	32-port Serial/WangNet IOC	5,000	69
23V97-CIU	Wang Band CIU	12,000	56
23V96	16-line Multi-line TC IOC	10,000	152
VS-6550	1-line Internal TC Processor	2,200	20
23V95-1	Tape IOC for up to four 2219V Drives	4,500	32
23V95-2	Tape IOC for up to four 2209V Drives	5,500	42
VS300-BB	Battery Backup	7,000	70
VS300-CC	Cable Concentrator	2,000	N/A
VS300-R0	C.E. support without Remote Diagnostics	N/A	125
	DISK CABLES		
VS 300 "A" Cables			
220-3041-29	15ft. Oisk Status Cable	$ 315	
220-3041-30	25ft. Disk Status Cable	410	
220-3041-31	50ft. Disk Status Cable	540	
VS 300 "B" Cables			
220-3033-43	15ft. Data Transfer Cable	315	
220-3033-44	24ft. Data Transfer Cable	410	
220-3033-45	50ft. Oata Transfer Cable	540	
VS 300 Exit "A" Cable			
220-3390	6ft. Data Storage Cabinet Exit Cable	220	
	UPGRADES		
UJ-3283	Memory Upgrade 4MB to 8MB	$ 40,000	
UJ-3284	Memory Upgrade 8MB to 12MB	40,000	
UJ-3285	Memory Upgrade 12MB to 16MB	40,000	
UJ-3288	Upgrade 23V98-1 to 23V98-2	1,500	
UJ-3289	Upgrade 23V98-1 to 23V98-3	3,000	
UJ-3290	Upgrade 23V98-1 to 23V98-4	4,500	
UJ-3291	Upgrade 23V98-2 to 23V98-3	1,500	
UJ-3292	Upgrade 23V98-2 to 23V98-4	3,000	
UJ-3293	Upgrade 23V98-3 to 23V98-4	1,500	

The 6-foot Oata Storage Cabinet Exit Cable is needed for any Data Storage Cabinet (DSC) being daisy chained to a free-standing VS disk drive or to a second Data Storage Cabinet. The new VS 300 cables listed above are required between the DSC and the CPU; standard VS 100 cables should be used for connections from one OSC to another DSC or to a free-standing VS disk drive and for connections between free-standing drives and the CPU. If the Data Storage Cabinet is to contain more than one drive, the customer must order a 220-3033 "B" Cable for each additional internal drive; the additional internal drives are shipped with an "A" Daisy Cable.

(continued)

VS 300 CONFIGURATION CHART

Included with the VS 300 processor are Main Memory, 32 KB Cache, a Memory Control Unit, System Bus Interface, one 32-port serial IOC, and a Support Control Unit with system console and archiver. Remote Diagnostics, Remote Administration, the VS Operating System and Assembler are standard. The VS 300 can support up to 192 workstations and over 20.4 billion bytes of on-line storage. Optionally, the VS 300 can be equipped with a hardware Floating Point Unit and Battery Backup.



* There is no maximum for 23V95-1 Tape IOCs, other than the system maximum of 15 IOCs. The maximum number of 23V98 Disk IOCs plus 23V95-2 Tape IOCs is determined by the following formula, where 1.2 and 2.0 refer to the data transfer rates for disk and tape drives:
(# of 23V98 IOCs not supporting 364 MB disks) * 1.2 + (# of 23V98 IOCs supporting 364 MB disks) * 2.0 + (# of 23V95-2 Tape IOCs) * 1.2 ≤ 10

(continued)

VS 300 ANNOUNCED (continued)

SAMPLE CONFIGURATIONS

These prices assume use of the Remote Diagnostics Feature.

MODEL NUMBER	DESCRIPTION	PURCHASE PRICE	MONTHLY MAINT.
Small VS 300 System - 24 Workstations		$307,700	$2,302
VS 300-4	4MB memory, serial IOC, Console, OS & Assem.	$170,000	$ 976
VS 300-CC	1 Cable Concentrator	2,000	N/A
4205-VS	23 VS DP Workstations	63,250	460
23V96	1 Multiline TC IOC	10,000	152
23V98-2	1 Disk IOC 2 Port	8,500	77
2265V-2	2 288MB Disk Drives	36,000	510
220-3041-18	1 Disk "A" Cable - 25 Feet	410	N/A
220-3033-24	2 Disk "B" Cable - 25 Feet	820	N/A
220-3031-2	1 "A" Daisy Chain Cable - 10 Feet	220	N/A
5573	1 Low Speed Band Printer	9,500	103
195-2105-5	1 COBOL Compiler	7,000	24
Medium VS 300 System - 88 Workstations		$661,335	$4,284
VS 300-8	8MB memory, serial IOC, Console, OS & Assem.	$202,000	$1,176
VS 300-CC	2 Cable Concentrators	4,000	N/A
23V97	2 32-port Serial IOCs	10,000	138
4205-VS	23 VS DP Workstations	63,250	460
4210-VS	64 VS WP Workstations	217,600	1,280
23V96	1 Multiline TC IOC	10,000	152
23V98-4	1 Disk IOC 4 port	10,500	107
2375V-C1	2 364MB Fixed Disk Drives & Cabinet	56,000	268
2375V-1	1 364MB Fixed Disk Upgrade	25,000	129
2267V-1	1 76MB Rem Disk Upgrade	12,000	160
220-3041-30	1 Disk "A" Cable - 25 Feet	410	N/A
220-3033-44	4 Disk "B" Cable - 25 Feet	1,640	N/A
220-3041-29	1 Disk "A" Cable - 15 Feet	315	N/A
220-3390	1 EXIT "A" Cable - 6 Feet	220	N/A
5573	1 Low Speed Band Printers	9,500	103
5577V	4 High Density Matrix Printers	23,900	220
195-2105-5	1 COBOL Compiler	7,000	24
195-2078-5	1 VS Word Processing	8,000	67
Large VS 300 System - 144 Workstations		$1,079,885	$6,419
VS300-16	16MB memory, serial IOC, Console, OS & Assem.	$290,000	$1,576
VS300-CC	3 Cable Concentrators	6,000	N/A
23V97	4 32-port Serial IOCs	20,000	345
4205-VS	23 VS DP Workstations	63,250	460
4210-VS	88 VS WP Workstations	299,200	1,280
4230-VS	32 VS DP/WP Workstations	121,600	768
23V96	1 Multiline TC IOC	10,000	152
23V98-2	1 Disk IOC 2-port	8,500	77
23V98-4	1 Disk IOC 4-port	10,500	107
2375V-C1	2 364MB Fixed Disk Drives & Cabinet	56,000	268
2375V-1	1 364MB Fixed Disk Upgrade	25,000	129
2267V-1	1 76MB Rem Disk Upgrade	12,000	160
2265V-3	2 620MB Fixed Oisk Orives	72,000	360
202-3041-24	1 Disk "A" Cable - 25 Feet	410	N/A
220-3033-38	2 Oisk "B" Cable - 25 Feet	820	N/A
220-3041-23	1 "A" Daisy Chain Cable - 10 Feet	220	N/A
220-3041-30	1 Disk "A" Cable - 25 Feet	410	N/A
220-3033-44	4 Disk "B" Cable - 25 Feet	1,640	N/A
220-3041-29	1 Disk "A" Cable - 15 Feet	315	N/A
220-3390	1 EXIT "A" Cable - 6 Feet	220	N/A
5573	2 Low Speed Band Printers	19,000	206
5577V	8 High Density Matrix Printers	47,800	440
195-2105-5	1 COBOL Compiler	7,000	24
195-2078-5	1 VS Word Processing	8,000	67

REFURBISHED VS 80 PACKAGES AVAILABLE
by Financed Systems Marketing

DESCRIPTION

Effective immediately, two additional refurbished VS 80 packaged systems, the VS-80X2R and VS-80Y2R, are available to ISOs. Availability of the VS-80Z2R package was announced in the January 1984 issue of ISO Tech News.

All three refurbished VS 80 packaged systems are described below. Prices for these packages are approximately 50% off the list price for a new VS 80 with equivalent equipment. In addition, ISO discounts apply.

VS-80X2R
Remanufactured VS 80 with 512 KB memory, Operating System and one compiler, 300 KB diskette drive and IOP, 16-port serial IOP, 4-port disk IOP, and 288 MB removable disk drive

VS-80Y2R
Remanufactured VS 80 with 512 KB memory, Operating System and one compiler, 300 KB diskette drive and IOP, 16-port serial IOP, 4-port disk IOP, and two 75 MB removable disk drives

VS-80Z2R
Remanufactured VS80 with 512 KB memory, Operating System and one compiler, 300 KB diskette drive and IOP, 16-port serial IOP, 4-port disk IOP, and 90 MB fixed/removable disk drive

Highlights of the refurbished VS 80 packages are:

- Maximum of 512 K bytes of memory
- 16-bit processor technology
- Up to 48 peripherals
- Up to 32 users (12 more users than a VS 45 and the same number of users as a VS 85 without cache memory)
- Up to 5.1 GB of disk storage capacity (twice that of a VS 45 and equal to that of a VS 85 with cache memory)
- Refurbished 2246C/S/R workstations available

The VS 80 will run all major VS software except PACE, the VS Graphics Facility, and VS Alliance. There will be no major VS 80 operating system enhancements after Operating System Release 6.20.

MARKETING STRATEGY

Recent surveys have shown that customers buying refurbished VS 80s tend to be price-sensitive or first-time computer buyers with annual sales in the $1 to $12 million range.

(continued)

REFURBISHED VS 80 PACKAGES AVAILABLE (continued)

Refurbished VS 80 packages provide:

. More Power Per Dollar - At a discount of approximately 50%, these VS 80s offer a high price-performance ratio.

. Large Configurations - Up to 32 workstations or 48 devices can be configured, with disk storage up to 5.1 GB.

. Remote Workstations - New 4220 or refurbished 2246R workstations can be ordered to handle remote applications.

Refurbished VS 80 price/performance is between a new VS 25 on the low end and a new VS 45 on the high end. For comparison, prices of each refurbished VS 80 package, an equivalent new VS 80, and the closest VS 45 package are listed below. The VS 45 packages include additional equipment not available on the VS 80 packages.

Refurbished VS 80	New VS 80	New VS 45
VS-80Z2R - $26,850	$59,500	VS45E - $48,000
VS-80X2R - $32,850	$64,500	VS45F - $53,000
VS-80Y2R - $36,850	$70,500	VS45G - $63,000

ORDERING INFORMATION

Monthly maintenance prices for refurbished VS 80 packages have been reduced by $100. This reduction is valid through June 30, 1984, after which normal maintenance rates will resume.

Model Number	Description	Purchase Price	Monthly Maint.
VS-80Y2R	Remanufactured VS80 (512KB), operating system & compiler, 300KB diskette drive, 16-port serial IOP, 4-port disk IOP and dual 75MB removable disk drives	$36,850	$700
VS-80X2R	Remanufactured VS80 (512KB), operating system & compiler, 300KB diskette drive, 16-port serial IOP, 4-port disk IOP and 288MB removable disk drive	32,850	635
VS-80Z2R	Remanufactured VS80 (512KB), operating system & compiler, 300KB diskette drive, 16-port serial IOP, 4-port disk IOP and 90MB fixed/removable disk drive	26,850	566
2246S-2BR	Serial DP Workstation (32K)	2,000	24
2246CR	Combined DP/WP Workstation (32K)	2,580	24
2246RR	Remote DP Workstation (32K)	2,100	42

VS OPERATING SYSTEM 6.20.00
by VS R&D

DESCRIPTION

VS Operating System Release 6.20.00 is now available. This release includes all functions and features of VS Operating System Releases 6.10.00 and later, as well as new features to improve performance and user administration of the operating system. Enhancements of VS Operating System Release 6.20.00 are listed below. For a more detailed description of these enhancements, refer to the Release 6.20.00 Software Bulletin, publication 800-3114-01.

Operating System Functionality:

. Page pool/block - A volume can optionally contain a page block (for VS 50/80) or a page pool (for VS 25/45 and VS 85/90/100), which reduces disk access time for Segment 2 paging files.

. Automatic Logoff - Release 6.20.00 provides the option to automatically logoff workstations that have been inactive in DP mode for a specified length of time.

. Version Checking - Version numbers of all mandatory operating system program files (see page 333) are checked at IPL time to detect incompatibilities that might interfere with system operation.

. IPL enhancements - The IPL procedure retains the name of the configuration file specified for the last IPL from that disk, and also automatically activates any remote devices identified through GENEDIT. Logons for all workstations can be inhibited from the IPL screen.

. Recovery enhancements - VTOC performance for crash and media-tolerant disks has been improved by retaining the bit map block after it is read into memory. Segment 0 control blocks are now included in task dumps.

System Software Enhancements:

. DMS - The Data Management System (DMS) supports relative files (on the VS 85/90/100) and shared consecutive files.

. Compress-In-Place - CIP is a new utility which consolidates free extents on a non-system volume, eliminating the need to do a full volume BACKUP and RESTORE.

. IOTRACE - This new utility monitors the I/O trace table and records I/O information for a range of devices, based on user-defined criteria.

. POOLSTAT - This new utility enables VS 25/45 and VS 85/90/100 users to monitor the utilization of page pools.

(continued)

VS OPERATING SYSTEM 6.20.00 (continued)

. SORTINT - This international version of the SORT utility, enables users to sort up to 20 files into a single output file, optionally reformatting the output record. External collating sequences can be specified.

Networking Operations:

. Release 6.20.00 supports Wang Systems Networking Point-to-Point transport, enabling wide-area communications between suitably equipped Wang systems over dedicated or switched communication lines.

. The Local WangNet Peripheral Band is supported for VS 50/80 and 85/90/100, enabling the VS CPU to communicate with its peripheral devices through a WangNet local cable rather than through separate cables.

New Device Support:

. 4205/4210/4230 workstations
. 4220 remote workstation (VS 50/80 and 85/90/100)
. 6300 graphics workstation
. 5577 dot matrix printer (graphics support added)
. DW/OS-55 daisy printer
. SWO4-3 for 620 MB disk drive (VS 50/80 and 85/90/100)
. Fixed 76 MB disk drive for VS 25/45
. 2509V 9-track serial tape drive for VS 25/45
. 25V76-2 Data Commun. Device Controller for VS 25/45
. WangNet Peripheral Band (NETMUX and 22V57W/22V67W)

New Software Supported:

. VS Graphics Facility (VSGF)
. VS Alliance
. VS Multi-Station

Other Enhancements:

The size of the system Queue file has been increased to accommodate a maximum of 2048 entries. The System Task can now handle 75 printers, and it allocates space for 128 remote systems. A maximum of 5000 open files per task is now allowed through GENEDIT, although available system memory may force a limit lower than this absolute maximum.

HARDWARE PRE-REQUISITES

CP3: Any VS 50/80 with a disk volume of 15 MB minimum.

CP4: Any VS 85/90/100 with a disk volume of 15 MB minimum.

CP5: Any VS 25/45 with an external disk volume of at least 15 MB and a Revision 3 Bus Processor Board.

(continued)

VS OPERATING SYSTEM 6.20.00 (continued)

HARDWARE PRE-REQUISITES (continued)

The system disk for a VS 45 target machine must be created on a VS with a 9-track tape drive and a disk drive on which the target volume can be mounted.

Remote Workstation Support:

Remote workstations for VS 25/45 systems are not supported by Operating System Release 6.20.00. Device and Data Link Processor (DLP) microcode upgrades for remote workstation support on VS 50/80 and VS 85/90/100 (@MC4220R 6.01.01, @MC2246R 4.03.03, @MCREMWS 4.00.25) are included in the Operating System 6.20.00 release. The following PROMs are required for remote workstation and printer support under Release 6.20.00:

Description	PROM Requirements
2246R Remote Workstn.	Remote DLP PROMs, v. 4.00.15
4220 Remote Workstn.	Boot-loading PROMs, v. 6.01.01
22V26 TC IOP (for VS 85/90/100 with remote workstations)	2732 PROMs, v. 5.02.00 (motherboard requires electrical changes also)
22V06 TC IOP (for VS 50/80 with remote workstations)	2732 PROMs, v. 4.03.00 (motherboard requires electrical changes also)

Workstation/Printer Support:

The following Serial IOP PROMs are required for use with OS Release 6.20.00:

- To run a 4205 or 4230 as workstation zero on VS 50/80, the PROM at location L59 on the 210-7216 board of the 22V07 Serial IOP must be WLI #378-4301.
- To support 6300/4200 workstations and 5577/LPS-12 printers on VS 85/90/100 systems, the 210-7110 board of the 22V27 Serial IOP must be Revision 3.

SOFTWARE PRE-REQUISITES

CP3: None

CP4: VS CPU microcode version 4.57.07 or later is required for the proper functioning of OS Release 6.20.00 on VS 85/90/100 systems.

CP5: None

(continued)

VS OPERATING SYSTEM 6.20.00 (continued)

ALERTS

1. The following VS software release levels require Operating System 6.20.00:

VS Word Processing	1.62.03
Wang Systems Networking (WSN)	7.02.02
System Activity Monitor	0.16.20
VS Alliance	1.00.00
VS Graphics Facility (VSGF)	1.00.00
VS Multi-Station	2.01.00
COBOL	3.08.00
RPGII	4.11.00
CAP (RPGII Conversion Aid Pkg.)	5.00.00
VS 3270 Emulation	6.07.00
VS SNA 3274 & 3777 Emulation	1.03.00

   If EZQUERY 3.02.10 or later is used, version 5.09.02 of the SORT utility (included in VS Operating System Release 6.20.00) is required.

2. When upgrading to 6.20.00, currently installed systems should make a copy of their existing FORMDFFN, USERLIST, and Configuration (@CONFIG@) files and reload them after the new system is built. This will retain all the proper print form definitions, userlist definitions, and the system configuration.

3. Using both page pooling and the new paging volume assignment override can result in poor performance. Page pooling is preferred; paging volume assignment should only be used for special situations to offset significant I/O activity that is not caused by paging.

4. Proper operation of remote workstations and printers requires the PROM upgrades listed under Remote Workstation Support on page 331.

5. Since the Queue file is scratched and replaced by a newly-formatted file upon initial IPL of Operating System 6.20.00, all previously queued files must be requeued and the list of additional operator consoles and printer class priorities must be manually reset.

ORDERING INFORMATION

The VS Operating System 6.20.00 tape, part number 195-2456-7, has been distributed to Wang Customer Engineering offices for installation at customer sites.

(continued)

VS OPERATING SYSTEM 6.20.00 (continued)

INSTALLATION INSTRUCTIONS

VS operating system installations are arranged through local Customer Engineering offices.

The following information indicates version numbers of modules included with VS Operating System 6.20.00. Installation option codes given in the first column are provided so that installations concerned with space utilization can make local decisions concerning which files to maintain on their system volumes.

The installation option codes are as follows:

M - mandatory module; must always be installed

C - hardware configuration dependent; should be scratched if corresponding device is not part of configuration

U - file must reside on the system volume, but contents are user-defined

O - optional module

N - never installed on user system

S - module to be scratched after completing OS installation

3 - module used only on VS 50/80 systems

4 - module used only on VS 85/90/100 systems

5 - module used only on VS 25/45 systems

* - new file included in VS Operating System 6.20.00

Code	Module	Version	Blocks Alloc.	Description
Operating System Nucleus & Related Files in Library @SYSTEM@:				
M*	@GENFORM	4	6	Remote workstation auto activation file
M	@GENMSG@	6.20.00	2	"System generation in progress" message
C5*	@MCBP1@	5.01.03	96	256K bus processor microcode
M5*	@MCBP@	3.02.04	63	128K bus processor microcode
M5*	@MCCP@	5.11.02	18	VS 25/45 CPU microcode file
M5*	@MCIPL@	R23B5	5	VS 25/45 system file loader
M5	@MCBOOT@	R2330	2	VS 25/45 boot file
M	@OPER@	6.20.00	53	Operator console
M	@PROC@	3.00.05	73	Procedure interpreter
O*	PROC	3.00.05	81	Procedure interface for @PROC@
O*	PROCFORM	1.03.00	8	FORMs file for PROC
M	@PRTTSK@	6.20.00	8	Printer task
M	@SHARER@	6.20.00	8	Sharer task
M5	@SY5005@	6.20.00	603	VS CP5 OS nucleus for VS 25/45
M4	@SYS004@	6.20.00	640	VS CP4 OS nucleus for VS 85/90/100
M3	@SY5003@	6.20.00	208	VS CP3 OS nucleus for VS 50/80
M	@SYSCPR@	6.20.00	29	Command Processor
M	@SYSGEN@	6.20.00	8	Dynamic system generation module
M	@SYSSVC@	6.20.00	109	OS supervisor calls
M	@SYSTSK@	6.20.00	35	System task
M	@TSKMGR@	6.20.00	9	User task manager
M	BUILOALT	6.20.00	3	Builds OMS alternate index structure
M	DEVLIST	6.20.62	148	Device list

(continued)

VS OPERATING SYSTEM 6.20.00 (continued)

Code	Module	Version	Blocks Alloc.	Description
Procedure for CP Installation in Library INSTOOLS:				
S	SELECTCP	6.20.00	4	CP selection procedure
PL/I Systems Program Error Message File in Library @ERRMSG@:				
M	WLREMSG	(None)	85	Runtime error messages for PL/I
Packaged Utilities & Related Files in Library @SYSTEM@:				
O	ASSEMBLE	1.09.02	53	VS Assembler
M	BACKUP	5.00.23	173	Backup utility
M	WTEFORM	185	43	FORMs file for BACKUP utility & OMSTXCVT
O	VOLCOPY	2.02.06	12	Track to track backup program
O*	CIP	1.00.05	7	Compress In-Place utility
O*	COPYOIS	2.03.00	203	VS to/from OIS file copy program
O	COPY	3.02.02	9	Copy disk files or libraries or volumes
O	COPYWP	2.01.05	62	Copy/Convert WP documents and VS files
O	COPY2200	5.02.00	56	VS to/from 2200 file copy program
O	WTCOEAT	5.02.00	70	COPY2200 external file
O	CONOENSE	2.00.01	25	Produces one-record-type file
O	WG5CREAT	2.00.01	11	CONDENSE external file
O	CONTROL	4.02.01	60	Oefines data file attributes
O	DATENTRY	4.02.04	36	Data file creation/editing utility
M	DISKINIT	5.04.28	73	Initializes disk volumes
O	DISKIN45	2.05.00	8	OS Rel. 4 to OS Rel. 5 disk formatter
O	DISPLAY	3.08.01	39	File display utility
O*	OMSTX	1.00.07	178	OMS/TX utility
O*	FRMRLBAK	1.00.02	159	FORMs file for OMS/TX utility
O*	OMSTXCVT	1.00.23	173	OMS/TX conversion utility
O3	DUMPER	5.02.04	1	CP3 main memory to diskette dump
O	EOITOR	6.09.16	12	VS integrated source text editor
O	WE1EDIT	6.09.16	65	EOITOR linker output module
O	EZFORMAT	1.12.03	135	Reproduces user created screens
O	FLOPYOUP	1.04.03	4	Ouplicates diskettes
O	FORMCNTL	5.42.16	17	Printer forms definition utility
M	GENEOIT	6.20.27	163	System configuration utility
O	IBMCOPY	1.12.03	62	VS to/from IBM diskette format
O	INFO	1.12.10	76	Displays on-line documentation
O	INQUIRY	2.00.06	37	Interrogates data files
O	IOELOG	2.00.06	148	I/O error log analyzer
O*	IOTRACE	1.10.02	4	I/O tracer
O	LINKER	1.10.05	9	Links VS object modules
O	LISTVTOC	6.12.09	8	Volume Table of Contents analysis
O	NEWTOPIC	1.00.00	2	Installs on line documentation for INFO
O	PATCH	1.07.02	3	Utility to patch programs and files
O*	POOLSTAT	6.20.02	2	Oisplays paging pool status
O	REPORT	4.00.05	12	Creates, modifies, and prints reports
O	WG3CANOM	4.00.05	99	REPORT external file
O	WG3PRINT	4.00.05	45	REPORT external file
M	SECURITY	5.04.19	28	Security utility; maintains User IOs
O	SORT	5.09.02	16	VS sort/merge file utility
O*	SORTINT	1.00.00	10	International SORT utility
O*	TABLEMNT	1.00.00	14	FORMs runtime screen for SORTINT utility
O*	STABLEMT	1.00.00	90	Table maintenance program
O	TAPECOPY	2.06.02	16	Tape to/from disk file copy utility
O	TAPEINIT	2.07.03	3	Wang VS & IBM tape initialization
O	TRANSL	2.00.00	12	File character-set translation
U	USERLIST	(None)	16	System user list
O	VERIFY	5.03.04	17	VS indexed file verification

(continued)

VS OPERATING SYSTEM 6.20.00 (continued)

Code	Module	Version	Blocks Alloc.	Description
Loadable Printer Microcode in Library @SYSTEM@:				
C	@MC2263S	4.03.07	S	M'code for serial SS70 & SS71 chain printers
C	@MC22735	4.03.07	S	M'code for serial S573 & 5574 band printers
C	@MC22815	4.04.03	7	Serial/parallel 6S81/2281 daisy prtr. m'code
C	@MC22215	4.03.06	5	M'code for serial 5S31 & 5521 matrix prntrs.
C	@MCSS77	6.00.02	28	M'code for serial VHD 5S77 matrix printer
C	@MCDW20	S.00.02	8	M'code for serial DW/OS-20 daisy printer
C*	@MCDWSS	6.00.02	10	M'code for serial DW/OS-SS daisy printer
C	@553SS	5.01.03	6	M'code for serial SS33 & SS3S matrix printers
C	@MCS575	5.01.02	10	M'code for serial 5575 band printer
Loadable Workstation Microcode in Library @5Y5TEM@:				
C	@MC22465	S.00.03	8	Microcode for 16K serial 22465 DP-only wkstn.
C	@MC2246C	5.01.05	11	Microcode for serial DP/WP 2246C workstation
C	@MC2266S	S.01.03	21	Microcode for 32K DP-only arch. workstation
C	@MC2266C	S.01.03	21	Microcode for 48K DP/WP archiving workstation
C	@224651	S.01.03	8	M'code for "029" wkstn. with standard keypad
C	@2246S2	S.01.03	8	M'code for 2246S wkstn. with numeric reverse
C	@2246S3	S.01.03	8	M'code for "029" wkstn. with reverse keypad
C	@2246S2B	5.01.0S	11	Microcode for 32K serial DP-only workstation
C*	@6300GM	6.00.02	30	Microcode for graphics workstation
C*	@MC420S	6.00.02	13	Microcode for the 4205 32K DP workstation
C	@4210WM	6.01.07	19	Microcode for 4210 workstation
C*	@MC4230	6.00.04	13	Microcode for 4230 workstation
C*	@MC4220R	6.01.01	15	Microcode for 4220 remote workstation
C	@MC2246R	4.03.03	13	Microcode for 2246R remote workstation
C	@MCREMWS	4.00.2S	16	DLP microcode for 422D and 2246R workstations
Loadable Tape Microcode in Library @ SYSTEM@:				
C	@MC2S29V	S.00.06	23	Microcode for Cartridge Tape Drive
C*	@MC2509V	6.00.01	20	Microcode for serial 9-Track Tape Drive
Serial Device Controller Microcode in Library @ 5YSTEM@:				
CS*	@MC25V37	7.00.10	19	Microcode for serial I/D Device Adapter
C3,4	@MC928W	6.01.18	20	Microcode for WangNet Peripheral Band IOP
Coldstart Procedure Files in Library COLDPROC:				
O	COLDBILD	6.20.00	3	Procedure to build COLDSTART diskettes
O	CDLDNAME	6.20.00	1	COLDBILD external program
O	N03SOCB	6.20.00	12	COLDBILD subprogram for CP3
D	N04SOCB	6.20.00	11	COLDBILD subprogram for CP4
O	N05SOCB	6.20.00	14	COLDBILD subprogram for CPS
CP5 Coldstart Files in Library @COLD25@:				
N	@COLD00S	6.00.06	61	COLDSTART program for VS 2S/4S
N	@CDLDCDL	(None)	1	Device list for COLDSTART models
N*	@CIP@	1.00.05	1S	Standalone Compress-In-Place utility
N	@5YS000@	6.00.06	10	CDLD5TART nucleus

(continued)

VS OPERATING SYSTEM 6.20.00 (continued)

INSTALLATION INSTRUCTIONS

Installation instructions are included in the Software Release Notice (diskette 713-0000) which is distributed with VS Operating System Release 6.20.00.

PROBLEMS CORRECTED

VS Operating System Problems Corrected:

- 5521 and 5531-2 printers were not printing lower case.
- Task crash occurred when cancelling a background task.
- On CP4 and CP5 systems, the default dump device could not be changed when performing a control mode dump.
- Command Processor's Manage Files & Libraries screen was unable to handle more than 15 volumes.
- On CP4 and CP5 systems, a Segment 2 GETHEAP shortage caused the Task Manager to cancel. In 6.20.00, this shortage generates an operator message and leaves the affected workstation hung until the next IPL.
- User's default print file class overrode the user's UFB print file class.
- READ AGAIN was not working properly for shared file I/O. A Sharer problem caused the system to enter control mode with a WS75 or WV58 error message.
- Two tasks performing START EQUAL, READ NEXT DMS operations with the same key on the same indexed file opened in shared mode caused a Sharer loop.
- The ATTACH/DETACH option in operator mode did not work for the 2265V-3 620MB dual-port disk drive.
- Dismounting a floppy which had PAGE, SPOOL, and/or WORK = YES would cause the system to hang.
- When initializing a disk with a bad track, COLDSTART would loop indefinitely trying to write verify.

Backup Problems Corrected:

- BACKUP now recognizes dual-port 300 and 620 meg disks.
- BACKUP will now preserve special access privileges for program files.

(continued)

VS OPERATING SYSTEM 6.20.00 (continued)

Backup Problems Corrected (continued):

- If the output disk volume filled up during a disk-to-disk backup and no partial file had been created (i.e., the last file written filled the disk's remaining space), the restore process could not continue to a succeeding volume.
- Attempting to mount an input volume on a drive that was already in use caused an infinite BACKUP loop.
- An addressing exception occurred when skipping unused tracks during disk-to-disk backup if the input disk volume had 0 or 49+n*50 free extents, for n > 1.
- A GETHEAP failure would occur if BACKUP was re-run many times by specifying PF Key 1 on the EOJ screen.
- If a diskette was inserted out of order during a multi-volume restore from diskettes, the only message given was a getparm screen, PRNAME=OUTPUT02.
- When backing up from a fixed disk to a removable 15 MB disk, a full VTOC caused the backup to terminate.
- The update function available on the PROMPT and SAMEFILE screens did not allow the user to backup/restore files that had a more recent modification date than the "modified after" date specified on the Select screen.
- The backup log did not display page numbers and reported indexed files as being consecutive.
- BACKUP would program check with an addressing exception if the output tape had an ANSI label.
- BACKUP did not preserve a tape's initial density.
- PF Key 1 to respecify the input tape volume name (after mounting the tape) was not enabled.
- When backing up a disk to multiple tapes, BACKUP occasionally wrote erroneous data to the second and subsequent tapes.

Other Problems Corrected:

- Decimal floating point numbers were not properly converted into packed decimal format.

(continued)

VS OPERATING SYSTEM 6.20.00 (continued)

Other Problems Corrected (continued):

- If users logged on remotely over WangNet and ran application programs which performed workstation I/O using the READ ALTERED command, pseudo-blanks would be changed to blanks on the workstation screen after each read and would thereby stop highlighting the modifiable fields.

- DMS/TX now releases all records held by a task during program-initiated transaction rollback.

REFERENCES

VS Operating System 6.20.00 Software Bulletin (800-3114-01)
VS System Operator's Reference Guide (800-1102-08)
VS System Utilities Reference Addendum (800-1303-04)
VS System Administrator's Reference Manual (800-1144-02)
VS Operating System Services (800-1107-06)
VS Operating System Services Pocket Guide (800-6204-03)
Control Mode Dump Quick Reference Card (800-6215-01)
VS DMS Reference Manual (800-1124-01)
VS DMS/TX Reference Manual (800-1128-01)
VS Procedure Language Reference Manual (800-1205-05)

REFURBISHED MVP-R & 2236-4R PACKAGES DISCONTINUED; MVP-Q ANNOUNCED
by Financed Systems Marketing

Due to successful sales efforts, Wang's inventory of the refurbished 2200 MVP-R and 2236-4R packages is almost depleted. Therefore, effective April 1, 1984, the refurbished MVP-R 2200 package and the refurbished 2236-4R four-pack of workstations have been discontinued. These packages, announced in the January 1984 issue of ISO Tech News, were as follows:

Model Number	Description	Refurb. Price	Monthly Maint.
MVP-R	Remanufactured 2200MVP (256 KB memory), new 22C32 Triple Controller, remanufactured 10MB Hawk Drive (5MB fixed/5MB removable) with 22C12 disk controller & stand	$12,500	$400
2236-4R	Four remanufactured 2236-DE terminals and a new 2236-MXD 4-port Terminal Multiplexer	5,500	98

Refurbished 2200 MVP-Q Package Announced

Given the success of the discontinued MVP-R package, Wang is announcing another refurbished 2200 MVP Package -- the MVP-Q. This package is similar to the MVP-R, except that the MVP-Q has a new 2200MVP-64 CPU unit. Orders will be accepted immediately for the MVP-Q package, and ISO discounts apply. Prices are as follows:

Model Number	Description	Refurb. Price	Monthly Maint.
MVP-Q	New 2200MVP-64 (256 KB memory), new 22C32 Triple Controller, remanufactured 10MB Hawk Drive (5MB fixed/5MB removable) with 22C12 disk controller and stand	$12,500	$400

There are no refurbished 2236-DE workstations available at this time. Please order new workstations as necessary on the same order.

2200 ICS UTILITIES, VERSION 2.00.07

by 2200 R&D

DESCRIPTION

Version 2.00.07 of the 2200 Integrated Communication Services (ICS) Utilities package is now available. The ICS Utilities provide extensive data communications and/or off-line standalone processing capabilities. When the ICS Utilities are used in the standalone mode, functions such as print spooling, task scheduling, and remote communication definitions can be performed. When ICS is used in conjunction with a communication software package, the user can send or receive files according to date/time (using a 2236MXE), schedule additional program tasks according to selective events, and print files received after the communication session has been completed.

In addition to correcting several problems with previous ICS releases, the following functionality has been added to 2200 ICS Utilities, Version 2.00.07:

1. Define a remote definition record for a Wang Systems Networking link.

2. Define a remote definition record for an X.25 link.

3. Queue a file to be sent to or retrieved from a 2200 system over a Wang Systems Networking link.

HARDWARE PRE-REQUISITES

- 2200 MVP(C), LVP(C) or partitionable SVP, with a minimum of 64K memory
- 2236D, 2236DE, 2236DW or 2336DW terminal
- At least 5 megabytes of disk storage
- Diskette drive
- Model 2228D or OP28D Data Communications Controller
- Synchronous, full-duplex modem with Auto-Calling Unit

SOFTWARE PRE-REQUISITES

Multi-User Operating System Release 2.4 or later

ALERTS

If the communications queue becomes full, unpredictable results can occur. As a precautionary measure, the system administrator should regularly clear the communications log and examine the receive and send queues.

(continued)

2200 ICS UTILITIES, VERSION 2.00.07 (continued)

ORDERING INFORMATION

2200 ICS Utilities software is available through normal order processing channels at a cost of $200. There is no charge for upgrades to ICS Utilities 2.00.07 from an earlier version. 2200 ICS Utilities Version 2.00.07 contains 51 files. Order by model number, as listed below:

System	Model #	Media
MVP(C),LVP(C)	195-2192-3	3 SSSD Diskettes (701-2745A, 701-2746A, 701-2747A)
SVP,LVP(C)	195-2192-5	1 DSDD Diskette (731-0121A)
MVP(C),LVP(C)	195-2192-9	3 DSDD Mini-Diskettes (731-8005, 731-8006, 731-8007)

INSTALLATION INSTRUCTIONS

Refer to sections 6.5 and 6.6 of the the 2200 ICS Utilities Manual, 700-7102.

PROBLEMS CORRECTED

Problems have been corrected in the Remote Definition, Communications Log, and Communications Queue Utilities.

REFERENCES

2200 ICS Utilities Manual (700-7102)

2200 WANG SYSTEMS NETWORKING, VERSION 2.0.0

by 2200 R&D

DESCRIPTION

The 2200 Wang Systems Networking Basic Support Services and Multipoint Secondary Transport software packages are now available. These packages allow 2200 MVP, MVPC, LVP, LVPC, and multi-partitioned SVP systems in geographically distributed locations to communicate with Wang VS systems. Once multipoint leased communication lines have been established between 2200 systems and VS systems, 2200 Wang Systems Networking functions as follows:

1. The ICS Network Control Utility is used to define a system connection (communication link) between a 2200 and a particular VS in the multipoint network. Separate system connections can be defined for each DLP on a 2200 system, and each system connection is referred to by its Remote Definition Name (RDN).

2. After a system connection has been defined for a VS, 2200 users can either (a) schedule a transfer job or (b) logon remotely to that VS. The VS system which the user wishes to access is indicated by the Remote Definition Name specified by the user.

3. If the user chooses to schedule a transfer job, copies of VS Word Processing documents and print files can be sent to or retrieved by the 2200 from the VS. Also, 2200 Word Processing documents can be sent to or retrieved by the VS from the 2200.

4. If VS remote logon is chosen and the user logs on to a VS, the user's 2200 terminal becomes in effect a VS workstation, from which selected VS programs and procedures can be run.

A maximum of six remote logon sessions, or five remote logon sessions and one transfer session, can be active at one time for each system connection.

HARDWARE PRE-REQUISITES

The minimum hardware configuration required to run 2200 Wang Systems Networking Release 2.0.0 is as follows:

- 2200 MVP(C), LVP(C) or multi-partitioned SVP with at least 64K of memory
- 2236DW or 2336DW terminal
- At least 5 MB of disk storage, plus a diskette drive
- Synchronous, full-duplex modem with Auto-Calling Unit
- Data Communications Controller:
  Model 2228D-4E or -8E for MVP(C)/LVP(C)
  Model OP28D-4E or -8E for SVP

(continued)

2200 WANG SYSTEMS NETWORKING, VERSION 2.0.0 (continued)

SOFTWARE PRE-REQUISITES

2200 WSN Basic Support Services Release 2.0.0 and 2200 Multipoint Secondary Transport Release 2.0.0 operate in conjunction with the following minimum software versions:

BASIC-2 Multi-User Operating System, Version 2.4 or later
2200 ICS Utilities, Version 2.00.07
2200 Word Processing, Version 2.02

With VS Operating System 6.11 releases, use:
VS Multipoint Primary Transport, Version 2.02
VS WSN Standard Components 6.11.00

With VS Operating System 6.20 releases, use:
VS Multipoint Primary Transport, Version 2.16.00
VS WSN Standard Components 7.10.06

The 2200 CPU memory must be partitioned to support: UNIV (5K), MROUTER (3.75K), and a mix of single File Transfer (52.25K) and VS Terminal Emulation Services (28K).

ALERTS

1. 2200 ICS Utilities Release 2.00.07 must be installed before installing 2200 Wang Systems Networking 2.0.0.

2. Underscores are not supported on 2200 printers. If a VS print file contains underscores, an additional line feed will be generated for the first line of underscores only. All text is printed, but not underscored.

PROBLEMS CORRECTED

Not applicable; initial release

ORDERING INFORMATION

2200 WSN Basic Support Services and Multipoint Secondary Transport are available through normal order processing channels. The 2200 Multipoint Secondary Transport software costs $500 and the 2200 Basic Support Services software costs $100. To order, specify the appropriate model number(s) as listed below:

2200 WSN Multipoint Secondary Transport:

Model #	System	Package #	Media
2200-WSNT-MS-3	MVP(C)	195-2807-3	1 SSSD diskette (701-2765)
2200-WSNT-MS-5	SVP,LVP(C)	195-2807-5	1 DSDD diskette (731-0131)
2200-WSNT-MS-9	SVP,LVP(C)	195-2807-9	1 DSDD mini-diskette (731-8004)

(continued)

2200 WANG SYSTEMS NETWORKING, VERSION 2.0.0 (continued)

ORDERING INFORMATION (continued)

The 2200 WSN Multipoint Secondary Transport consists of the following microcode file, which is loaded into the controller board via the 2200 Network Control Utility:

Description	File Name	Version
2200 Multipoint/Secondary Transport	RWNe0300	2.0.0

2200 WSN Basic Support Services:

Model #	System	Package #	Media
2200-WSNS-BSS-3	MVP(C)	195-2810-3	2 55SD Diskettes (701-2763 and 701-2764)
2200-W5NS-BSS-5	5VP,LVP(C)	195-2810-5	2 DSDD Diskettes (731-0130 and 731-0132)
2200-W5NS-BSS-9	5VP,LVP(C)	195-2810-9	2 DSDD Mini-Diskettes (731-8002 and 731-8003)

The following files are included in 2200 WSN Basic Support Services Release 2.0.0:

Description	File Name	Version
Network Control Utility	NCUy1010	2.0.0
File Transfer Manager	RWNf0104	2.0.0
VS Terminal Emulator	RWNe1010	2.0.0
VS Print Utility	VSPRINT	2.0.0
Create Received WP Document	CREATEWP	2.0.0
WSN Installation Program	RWNINSTL	2.0.0

INSTALLATION INSTRUCTIONS

Install ICS Utilities 2.00.07 before installing 2200 Wang Systems Networking 2.0.0. To install the 2200 WSN software, select Install Communications Package from the Supervisory Utilities option of the ICS Utilities menu, and proceed as documented in Appendix C of the Network User and Operations Guide for 2200 Systems, 700-7723.

REFERENCES

2200 Network User and Operations Guide (700-7723)
2200 ICS Utilities Manual (700-7102)

PC SOFTWARE RELEASE LEVELS

Currently-released core software for the Wang Professional Computer is listed below. Although an attempt has been made to list hardware and software requirements of each software release, this list of requirements may not be complete. Newly-released software is indicated by an underscored version number.

MODEL #	I/U*	DESCRIPTION	PKG. #	VERSION	HARDWARE REQUIREMENTS**	SOFTWARE REQUIREMENTS
System Software						
PC-SS001	U	System Software Diskette	195-2326-9	V1.22	128K RAM, 1,2,3+,4 or 5	(V1.21 Printer Support Menu changed)
PC-PM050	I	CP/M-80 Emul. Card & Sft.	195-2738-9	V1.00	128K RAM, 1,2,3+,4 or 5, 6 or 7	System Software V1.00 or later
PC-SS005	I	CP/M-80 Emul. Sftware Only	195-2738-9	V1.00	128K RAM, 1,2,3+,4 or 5, 6 or 7	System Software V1.00 or later
Languages						
PC-SS010	I	MS-Compiled BASIC	195-2327-9	V1.00	128K RAM, 1,2,3+,4 or 5	System Software V1.00 or later
PC-SS012	I	MS-FORTRAN	195-2329-9	V3.04	256K RAM, 1,2,3+,4 or 5	System Software V1.00 or later
PC-SS011	I	MS-Pascal	195-2328-9	V3.04	256K RAM, 1,2,3+,4 or 5	System Software V1.00 or later
PC-SS013	I	MS-COBOL	195-2330-9	V1.07	256K RAM, 1,2,3+,4 or 5	System Software V1.00 or later
PC-SS022	I	M'Focus Lev.II COBOL Comp.	195-2756-9	V2.1	256K RAM, 1,2,3+,4 or 5	System Software V1.21 or later
PC-SS023	I	M'Focus FORMS-2	195-2764-9	V2.1	256K RAM, 1,2,3+,4 or 5	System Software V1.21 or later
PC-SS024	I	M'Focus ANIMATOR	195-2765-9	V2.1	256K RAM, 1,2,3+,4 or 5	System Software V1.21 or later
PC-CS0003	I	M'Focus COBOL Pgm. Envir.	196-0003-9	V2.1	256K RAM, 1,2,3+,4 or 5	System Software V1.21 or later
Productivity						
PC-AS001	U	PC Multiplan	195-2338-9	V1.06.05	128K RAM, 1,2,3,4 or 5	System Software V1.10 or later
PC-AS002	U	PC Word Processing	195-2339-9	V1.11	128K RAM, 1,2,3+,4 or 5	System Software V1.10 or later
PC-AS002-2	I	PC Advanced Word Process.	195-2755-9	V2.0	256K RAM, 1,2,3+,4 or 5	System Software V1.21 or later
PC-AS003	I	PC Business Graphics	195-2462-9	V1.00	256K RAM, 1,2,3+,4+ or 5	System Software V1.21 or later
PC-AS005	I	PC Notebook	195-2621-9	V1.0	128K RAM, 1,2,3R,4 or 5	System Software V1.10 or later
PC-AS004	I	PC Database	195-2463-9	V1.05	128K RAM, 1,2,3R,4 or 5	System Software V1.21 or later
PC-CS001	I	Productivity I (M'plan/WP/Async.)	196-0002-9	N/A	128K RAM, 1,2,3+,4 or 5	System Software V1.10 or later
Telecommunications						
PC-SS020	I	PC Async.Comm. (inc.2200)	195-2331-9	V1.00	128K RAM, 1,2,3,4 or 5, 10	System Software V1.00 or later
195-2781-9	I	VT-100 Emulation	195-2781-9	V1.1	128K RAM, 1,2,3+,4 or 5, 10	System Software V1.21 or later
PC-PM041	I	PC Local Communications	195-2647-9	V1.01	128K RAM, 1,2,3,4,6	System Software V1.10 or later
PC-SS063	I	3276 SNA/SDLC Emulation	195-2605-9	V1.08E	128K RAM, 1,2,3,4 or 5, 8, 11	System Software V1.10 or later
PC-WSNT-MS	I	PC Multipoint Secondary***	195-2803-9	V2.1	128K RAM, 1,2,3,4 or 5, 9, 11	System Software V1.10 or later
PC-WSNT-BSS	I	BSS File Trans./Term.Em.***	195-2806-9	V2.1	128K RAM, 1,2,3,4 or 5, 9, 11	System Software V1.10 or later
PC-SS060	I	Batch 2780/3780/WPS Option	195-2337-9	V2.01	128K RAM, 1,2,3,4 or 5, 9, 11	System Software V1.10 or later

(continued)

* I = Initial Release; U = Updated Version

** Hardware Requirements:

1 - Wang PC CPU Board #210-8221, with V1.00 Boot EPROMs (ECO 26344)
2 - Wang PC Keyboard
3 - One 5.25" DSDD diskette drive
3+- Two 5.25" DSDD diskette drives preferred
3R- Two 5.25" DSDD diskette drives or one 10 MB Winchester drive required
4 - PC-PM004 Wang Monochrome Monitor with PC-PM001 character resolution board #210-8243
4+- PC-PM004 Wang Monochrome Monitor with PC-PM001 character res. board #210-8243 and PC-PM002 graphics res. board #210-8233
5 - Industry-standard monitor (RGB or B&W) with PC-PM003 character/graphics board #210-8222 using 80-column mode only
6 - PC-PM041 Wang PC Local Communications Option Card Set (Data Link Board #210-8245 and CPU Board #210-8246)
7 - PC-PM050 Wang PC CP/M 80 Emulation Card #210-8248
8 - PC-PM042 Wang PC Multiport Controller Card #210-8251
9 - PC-PM040 Wang PC Remote Telecommunications Card #210-8232
10 - Asynchronous/synchronous RS-232-C/CCITT V.24-compatible modem and cable (or null modem, for communications up to 50 feet)
11 - Synchronous RS-232-C/CCITT V.24-compatible modem and cable (or null modem, for communications up to 50 feet)

*** Wang Systems Networking (WSN) software formerly bundled as Remote WangNet with the PC-PM040 Remote Communications Option. Orders for PC Remote WangNet must now specify a Transport (such as PC-WSNT-MS), a Service (PC-WSNS-BSS Basic Support Service, containing File Transfer and VS Terminal Emulation), and the Wang PC Remote Telecommunications card (PC-PM040). The three items were formerly bundled in PC-PM040. Color (RGB) monitors do not function with these Wang PC WSN software packages.

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2. RECIPIENT will receive and maintain all Confidential Information in confidence using at least reasonable care and except as provided herein, shall not use Confidential Information for its own benefit or disclose it to third parties without the written consent of WANG.

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4. RECIPIENT's obligation of confidentiality under this Agreement shall not apply to information which: (a) is already known to RECIPIENT or is pub- licly available at the time of disclosure; (b) is disclosed to RECIPIENT by a third party who is not in breach of an obligation of confidentiality; or (c) becomes publicly available after disclosure through no act of RECIPIENT.

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By_____

Title_____

Date_____

ISO PROSPECT REPORT & LABEL ORDER FORM

To order either reports or labels based on the National Business List yellow pages data base, complete and return this form, together with a signed non-disclosure agreement. If you have questions, call Lori-Ann Russell at 617-459-5000 x.2049.

If the desired territory is defined by ZIP code, please provide the 5-digit ZIP codes in Section A. Ranges of ZIP codes(e.g. 02101 to 02199) or individual ZIP codes may be used. If the territory includes an entire county or state, or is solely defined by county and/or state, please complete either the county or state information in Section B. Please note that either section A or section B must be filled in or both may be filled in if you cover ZIP code segments in addition to entire counties or states.

SECTION A

Zip Code		Zip Code
_____	TO	_____
_____	TO	_____
_____	TO	_____
_____	TO	_____
_____	TO	_____
_____	TO	_____
_____	TO	_____
_____	TO	_____
_____	TO	_____
_____	TO	_____
_____	TO	_____
_____	TO	_____

SECTION B

County Name	State
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Mail Reports/Labels to:

_____
Name

_____
Company

_____
Street Address

_____
City, State and ZIP Code

_____
Telephone

_____
Wang ISO Account Rep. (signature)

_____
Date

_____
Wang Branch Manager (signature)

_____
Date

(over)

SECTION C

The following vertical market(s) is/are to be included _____ or excluded _____ from the desired territory.

C1 If you are only interested in certain SIC codes in the territory, please place an "X" on the appropriate line. If you are only interested in a sub-segment of a SIC, complete section C2.

_____ Medical	_____ Utility	_____ Banks
_____ Constr/Mining	_____ Distribution	_____ Hospitals
_____ Legal	_____ Retail	_____ Transporation
_____ Government	_____ Services	_____ Insurance
_____ Membership	_____ Education	_____ Agriculture
_____ Communications	_____ Miscellaneous	_____ Manufacturing

C2 If only a sub-segment of a SIC is desired, complete the desired SIC codes left-justified.

! ! ! ! !	! ! ! ! !	! ! ! ! !
! ! ! ! !	! ! ! ! !	! ! ! ! !
! ! ! ! !	! ! ! ! !	! ! ! ! !
! ! ! ! !	! ! ! ! !	! ! ! ! !

Please place an "X" on the appropriate lines:

_____ Prospect Report
_____ Mailing Support

_____ Gummed 1 1/2" X 4"
_____ Cheshire 1 1/8" X 3 5/8"

_____ Sort by (choose one): _____ ZIP, _____ Name, _____ State

Return To:

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Enclose any material that you would like to have published in ISO Tech News. Notices for other ISOs as well as technical "how to" articles, success stories, usage pointers. etc., all are welcome. This is your publication -- make it work for you!

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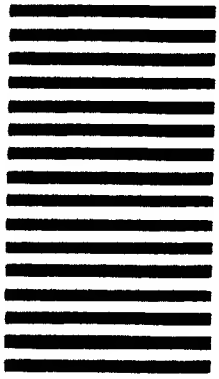

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To register for the 1984 Wang ISO Conference, please complete both sides of this form and return it, together with a check for the $200 registration fee, payable to Wang Laboratories, Inc. A duplicate form should be used for each person planning to attend the conference. Registration deadline is May 25, 1984. Return this completed form, together with your registration fee, to:

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Please register me for the Second Annual Wang ISO Conference, Planning for Growth, June 3, 4, and 5, 1984:

Name _____

Company _____

Title _____

City _____ State _____ Zip Code _____

Telephone _____
(area code)

Identification Number _____

Wang Employee? YES____ NO____

District _____

RDB _____

Prospect? YES____ NO____

Please check ISO product status:

Software Vendor	PC___	VS___	OIS___	2200___
System House	PC___	VS___	OIS___	2200___
Dealer	PC___	OIS___		

Session Pre-Registration Form

Instructions: Please check off one session for each time frame to ensure guaranteed seating for each session. The legend listed below identifies the intended audience for each session.

Legend: System House = SH, Dealer = D, Vendor = V, General = GEN

Check 1 per Sess.	Session Code and Title	Audience
	Monday 2:00-3:30	
_____	M1A System House Technical Support Presentation (Repeated)	SH
_____	M2A Telemarketing	SH
_____	M3A Effective Local Advertising	D
_____	M4A Business Opportunities	V
_____	M5A Wang PC Product Line (Repeated)	GEN
_____	M6A Wang Systems Networking	SH-V
_____	M7A PC BASIC-2 and 2200 Bridge Strategy	SH-V
_____	M8A Peachtree™ Product Workshop	GEN
	Monday 4:00-5:30	
_____	M9B System House Administration (Repeated)	SH
_____	M10B Attracting Venture Capital	SH
_____	M11B Making Money with Complementary Products and Services	D
_____	M12B Software Integration with Wang Core Software	SH-V
_____	M13B Wang PC Local Interconnect Option	SH-V
_____	M14B Wang VS Development Environment	SH-V
_____	M15B International PC Software Opportunities	V
_____	M16B Visi On™	GEN
	Tuesday 2:00-3:30	
_____	T1A System House Administration (Repeat)	SH
_____	T2A Using Seminars to Increase Sales	SH
_____	T3A Practical Merchandising for Increased Sales	D
_____	T4A Writing Software for Wang's International Markets	SH-V
_____	T5A Wang PC Product Line (Repeat)	GEN
_____	T6A Wang OFFICE	SH-V
_____	T7A LOTUS 1-2-3™	GEN
	Tuesday 4:00-5:30	
_____	T8B System House Technical Support Presentation (Repeat)	SH
_____	T9B Positioning for Growth	SH
_____	T10B Operational and Legal Aspects of Floor Planning	D
_____	T11B Wang PC Compatibility with IBM PC	D-V
_____	T12B PACE: An Application Development Environment	SH-V
_____	T13B Wang PC Attached to a VS	SH-V
_____	T14B PIC™ Product Overview	SH-V
_____	T15B TK!Solver™	GEN

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